

REMARKS

The pending Office Action addresses and rejects claims 1-9 and 13-27.

Interview Summary

Applicants thank the Examiner for extending the courtesy of a telephone interview to Applicants' attorney on July 23, 2007. During the Interview, the arguments set forth below were discussed with the Examiner and the Examiner indicated that the arguments were persuasive and may place the application in condition for allowance.

Rejection Pursuant to 35 U.S.C. §103

Claims 1-4, 6, 7, 9, 13-15, and 17-26

The Examiner rejects claims 1-4, 6, 7, 9, 13-15, and 17-26 pursuant to 35 U.S.C. §103(a) as being obvious over US 2003/0032915 A1 to Saul ("Saul 915") in view of U.S. Patent 6,533,733 to Ericson et al. ("Ericson"). The Examiner asserts that Saul 915 teaches the claimed invention except for "an external system controller" that "communicates with the shunt and valve system remotely via telemetry." The Examiner relies on Ericson to teach this feature, arguing that it would have been obvious to modify the device of Saul 915 in view of Ericson to arrive at the claimed invention. Applicant respectfully disagrees.

Independent claim 1 recites a method of regulating cerebrospinal fluid flow in a hydrocephalus patient. The method includes providing an implantable shunt system having a sensor element positioned within a ventricular cavity and a selectively operable external system controller device for communicating remotely via telemetry with the shunt system. Independent claim 17 similarly recites an apparatus for regulating cerebrospinal fluid flow in a hydrocephalus patient that includes a selectively operable external system controller device for communicating remotely via telemetry with the shunt system.

One having ordinary skill in the art would not be motivated to modify Saul 915 in view of Ericson to include a selectively operable external system controller device for communication

remotely via telemetry with the system. MPEP §2143.01(V) states that “[i]f the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.” Saul 915 discloses a method and apparatus for lowering elevated intracranial pressure utilizing a fluid drainage controller which regulates the drainage of CSF based on a cardiac or other transient component of the patient’s intracranial pressure. In Saul 915, an *internal* controller is programmed to *automatically* open or close a valve in response to increases or decreases in the transient component of the patient’s intracranial pressure. (Saul 915 page 4, lines 21-25.) The method and apparatus disclosed by Saul 915 require *continuously monitoring* a patient’s intracranial pressure and *automatically* opening or closing a valve in order to maintain a target pressure in the ventricles over a period of time. In contrast, the method and apparatus of the claimed invention require the patient or attending physician to energize the system using the external controller device. Modifying Saul 915 to include such an external controller would render Saul 915 unsatisfactory for its intended purpose because Saul 915 could no longer continuously monitor a patient’s intracranial pressure, as the system would have to be energized by an operator. No person having ordinary skill in the art would be motivated to modify a method and device aimed at continuous, automatic operation to include the intervening step of energizing. Thus, it would not have been obvious to modify Saul 915 in view of Ericson.

Accordingly, independent claims 1 and 17, as well as claims 2-16 and 18-27 which depend directly or indirectly therefrom, distinguish over Saul 915 and Ericson, taken alone or combined, and represent allowable subject matter.

Claims 5, 8, 16, and 27

The Examiner rejects claims 5, 8, 16, and 27 pursuant to 35 U.S.C. §103(a) as being obvious over Ericson in view of Saul 915 and further in view of US 2003/0004495 A1 of Saul (“Saul 495”). The Examiner asserts that Ericson and Saul 915 teach the claimed invention “with the exception of repeating the resistance adjustment procedure at proscribed time intervals” and “a timed shut-off mechanism,” relying on Saul 495 to teach these features. Claims 5, 8, and 16 depend from independent claim 1 and claim 27 depends from independent claim 17. As discussed above, one

skilled in the art would have no motivation to combine Ericson and Saul 915, and therefore claims 5, 8, 16, and 27 are allowable at least because they depend from allowable claims 1 and 17.

Conclusion

In view of the above amendments and remarks, Applicant submits that all claims are in condition for allowance, and allowance thereof is respectfully requested. Applicant encourages the Examiner to telephone the undersigned in the event that such communication might expedite prosecution of this matter.

Dated: July 26, 2007

Respectfully submitted,

Electronic Signature: /William C. Geary III
William C. Geary III
Registration No.: 31,359
NUTTER MCCLENNEN & FISH LLP
World Trade Center West
155 Seaport Boulevard
Boston, Massachusetts 02210-2604
(617) 439-2766
(617) 310-9766 (Fax)
Attorney for Applicant